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EXAMINER	
BATTAGLIA, MICHAEL V	
ART UNIT	**PAPER NUMBER**
2652	10

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,586	OHUCHIDA ET AL.	
	Examiner	Art Unit	
	Michael V Battaglia	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23* is/are allowed.

6)☒ Claim(s) *1-5,7,8,9/3,10-22 and 24* is/are rejected.

7)☒ Claim(s) *9/7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action, dated April 27, 2004, is in response to Applicant's amendment, filed March 5, 2004. Claims 1-5 and 7-24 are pending.

Drawings

1. Corrected drawings were received on March 10, 2004. These drawings are acceptable.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. Claims 1-4, 9/3, 10, 20, 22, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Takeda (US 6,084,844).

In regard to claim 1, Takeda discloses an optical pickup apparatus for reading/reproducing data on an optical recording medium, comprising: a light source (Figs. 1A, 1B, and 2B; element 2) configured to emit a light beam; a diffracting device configured to transmit the light beam emitted from the light source, and to diffract a light beam reflected from the optical recording medium (Figs. 1A, 1B, and 3C; elements 33-34); an optical device having a reflecting portion and a transmitting portion, configured to reflect one part of the light beam emitted from the light source to the diffracting device by the reflecting portion and to transmit another part of the light beam emitted from the light source to the optical recording medium by the transmitting portion, and to

transmit the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Figs. 1A, 1B, and 3C; elements 31 and 35); a photodetecting device (Figs. 1B and 2B, elements 7 and 8) configured to detect the light beam reflected from the optical recording medium through the optical device and the diffracting device, for signal light detection (Figs. 1B and 2B, element 7); and wherein the diffracting device includes a diffracting portion to diffract the one part of the light beam reflected by the reflecting portion of the optical device to the photodetecting device for monitor light detection of the light source (Fig. 3C, element 34 and Figs. 1A and 2B, element 8).

In regard to claim 2, Takeda discloses that the diffraction device is a transmitting type diffraction device (Figs. 1A, 1B, and 3C; elements 33-34).

In regard to claim 3, Takeda discloses that the optical device is integrated with the diffracting device (Fig. 3C).

In regard to claim 4, Takeda discloses that the diffracting device is a polarization hologram whose diffracting function is different according to a polarization state of the incident light beam, and includes a polarization hologram portion configured to diffract the light beam reflected from the optical device to the photodetecting device for monitor light detection (Col. 7, lines 40-60).

In regard to claim 9/3, Takeda discloses that a section of the diffracting device at a side of the optical device form a section of bilateral asymmetry (Fig. 3A, element 34).

In regard to claim 10, Takeda discloses an optical pickup apparatus for reading/ reproducing data on an optical recording medium, comprising: light emitting means for emitting a light beam (Figs. 1A and 1B, element 2); diffracting means for transmitting the light beam emitted from the light emitting means, and for diffracting a light beam reflected from the optical recording medium (Figs. 1A, 1B, and 3C; elements 33-34); optical means having a reflecting portion and a

transmitting portion, for reflecting one part of the light beam emitted from the light emitting means to the diffracting means by the reflecting portion and for transmitting another part of the light beam emitted from the light emitting means to the optical recording medium by the transmitting portion, and for transmitting the light beam reflected from the optical recording medium to the diffracting means by the transmitting portion (Figs. 1A, 1B, and 3C; elements 31 and 35); detecting means (Figs. 1A and 1B, elements 7-8) for detecting the light beam reflected from the optical recording medium through the optical device with reflecting portion and the diffracting device, for signal light detection (Figs. 1A and 1B, element 7); and wherein the diffracting device includes a diffracting portion to diffract the one part of the light beam reflected by the reflecting portion of the optical means to the detecting means for monitor light detection of the light emitting means (Fig. 3C, element 34 and Fig. 1A, element 8).

In regard to claim 20, Takeda discloses that the diffracting device includes at its center portion a portion to diffract said light beam emitted from the light source (Figs. 1A, 1B, and 3C, element 33), and further includes at its peripheral portion said diffracting portion to diffract said one part of the light beam reflected by the reflecting portion (Figs. 1A and 3C, element 34).

In regard to claim 22, Takeda discloses that the optical pickup apparatus of claim 1 further comprises a second photodetecting device for receiving only said one part of the light beam reflected by the reflecting portion of the optical device (Col. 9, lines 1-10).

In regard to claim 24, Takeda discloses an optical pickup apparatus for reading/reproducing data, comprising: a light source configured to emit a light beam (Figs. 1A and 1B, element 2); a diffracting device configured to transmit the light beam emitted from the light source, and to diffract a light beam reflected from the optical recording medium (Figs. 1A, 1B, and 3C, elements 33 and 34); an optical device having a reflecting portion and a transmitting portion,

configured to reflect one part of the light beam emitted from the light source to the diffracting device by the reflecting portion and to transmit another part of the light beam emitted from the light source to the optical recording medium by the transmitting portion, and to transmit the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Figs. 1A, 1B, and 3C; elements 31 and 35); a photodetecting device (Figs. 1B and 2B, elements 7 and 8) configured to detect the light beam reflected from the optical recording medium through the optical device and the diffracting, for signal light detection (Figs. 1B and 2B, element 7); and wherein the diffracting device includes a diffracting portion to diffract the one part of the light beam reflected by the reflecting portion of the optical device to the photodetecting device for monitor light detection of the light source (Figs. 1A and 3C, element 34), and said signal light detection signals and said monitor light detection signals are transmitted through a transmissive hologram (Fig. 3C, elements 331 and 341). It is noted that light emitted from the light source is transmitted through hologram (Fig. 3C, elements 331 and 341) to the either the optical recording medium (Figs. 1A and 1B, element 5) or the reflective surface (Fig. 3C, element 35) and then from the optical recording medium or the reflective surface back through the hologram and to the photodetecting device (Figs. 1B and 2B, elements 7 and 8).

4. Claims 12, 14, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kay et al (hereafter Kay) (US 5,544,143).

In regard to claim 12, Kay discloses an optical data recording/ reproducing apparatus for recording/reproducing data on an optical recording medium, comprising: a light source configured to emit a light beam (Fig. 1, element 40); a diffracting device configured to transmit the light beam emitted from the light source, and to diffract a light beam reflected from the optical recording medium (Fig. 1, element 42); an optical device having a reflecting portion and a transmitting

portion, configured to reflect one part of the light beam emitted from the light source to the diffracting device by the reflecting portion and to transmit another part of the light beam emitted from the light source to the optical recording medium by the transmitting portion, and to transmit the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); a collimating lens configured to collimate the light beam transmitted through the transmitting portion of the optical device with reflecting portion (Fig. 1, element 44); an objective lens configured to focus the light beam from the collimating lens onto the optical recording medium (Fig. 1, element 52); a photodetecting device (Fig. 1, elements 68 and 72) configured to detect the light beam reflected from the optical recording medium through the objective lens, the collimating lens, the optical device, and the diffracting device, for signal light detection (Fig. 1, element 68); and wherein the diffracting device includes a diffracting portion to diffract the one part of the light beam reflected by the reflecting portion of the optical device to the photodetecting device, so as to be detected on the photodetecting device for monitor light detection of the light source (Fig. 1, elements 42 and 72).

In regard to claim 14, Kay discloses an optical data recording/ reproducing apparatus for recording/reproducing data on an optical recording medium, comprising: light emitting means for emitting a light beam (Fig. 1, element 40); diffracting means for transmitting the light beam emitted from the light emitting means, and for diffracting a light beam reflected from the optical recording medium (Fig. 1, element 42); optical means having a reflecting portion and a transmitting portion, for reflecting one part of the light beam emitted from the light emitting means to the diffracting means by the reflecting portion and for transmitting another part of the light beam emitted from the light emitting means to the optical recording medium by the transmitting portion, and for

transmitting the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); collimating means for collimating the light beam transmitted through the transmitting portion of the optical means (Fig. 1, element 44); focusing means for focusing the light beam from the collimating means to the optical recording medium (Fig. 1, element 52); detecting means (Fig. 1, elements 68 and 72) for detecting the light beam reflected from the optical recording medium through the collimating means, the focusing means, the optical means, and the diffracting means, for signal light detection (Fig. 1, element 68); and wherein the diffracting means includes a diffracting portion to diffract the part of the light beam reflected by the reflecting portion of the optical means to the detecting means, so as to be detected on the detecting means for monitor light detection of the light emitting means (Fig. 1, elements 42 and 72).

In regard to claim 16, Kay discloses an optical data recording/reproducing method for recording/reproducing data on an optical recording medium, comprising: emitting a light beam by a light source (Fig. 1, element 40); transmitting the light beam emitted from the light source and diffracting a light beam reflected from the optical recording medium by a diffracting device (Fig. 1, element 42); reflecting one part of the light beam emitted from the light source to the diffracting device by a reflecting portion of an optical device and transmitting another part of the light beam emitted from the light source to the optical recording medium by a transmitting portion of the optical device, and transmitting the light beam reflected from the optical recording medium to said diffracting device by the transmitting portion of the optical device (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); collimating the light beam transmitted through the transmitting portion of the optical device by a collimating lens (Fig. 1, element 44); focusing the light beam from the collimating lens to the optical recording medium by an objective lens (Fig. 1, element 52); detecting

the light beam reflected from the optical recording medium through the objective lens, the collimating lens, the optical device, and the diffracting device, for signal light detection by a photodetecting device (Fig. 1, elements 68); and diffracting the part of the light beam reflected by the reflecting portion of the optical device to the photodetecting device, so as to be detected on the photodetecting device for monitor light detection of the light source (Fig. 1, elements 42 and 72). The photodetecting device of Kay is interpreted as comprising elements 68 and 72.

In regard to claim 17, Kay discloses that the said photodetecting device is used to control output of said light source (Col. 6, lines 32-56).

Claim Rejections - 35 USC § 103

5. Claims 5, 7-8, 11, 13, 15, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay in view of Ohyama (US 6,512,608).

In regard to claim 5, Kay discloses 5. An optical pickup apparatus for reading/ reproducing data on an optical recording medium, comprising: a light source configured to a emit light beam (Fig. 1, element 40); a diffracting device configured to transmit the light beam emitted from the light source and to diffract a light beam reflected from the optical recording medium (Fig. 1, element 42); an optical device having a reflecting portion and a transmitting portion, configured to reflect one part of the light beam emitted from the light source to the diffracting device by the reflecting portion and to transmit other parts of the light beam emitted from the light source to the optical recording medium by the transmitting portion, and to transmit the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); a photodetecting device (Fig. 1, elements 68 and 72) configured to detect the light beams reflected from the optical recording medium through the

optical device with reflecting portion and the diffracting device, for signal light detection (Fig. 1, element 68); and wherein the diffracting device includes plural diffracting portions to diffract the light beam reflected by the reflecting portion of the optical device to the photodetecting device, so as to be detected on the photodetecting device for monitor light detection the light source (Fig. 1, elements 42 and 72 and Fig. 3). Kay does not disclose light sources configured to emit light beams of different wavelengths or that each of the diffracting portions corresponds to one of the different wavelengths.

Ohyama discloses light sources configured to emit light beams of different wavelengths and a diffracting device that includes plural diffracting portions, in which each of the diffracting portions corresponds to one of the different wavelengths (Figs. 2-4, elements 25, 27, 29. 31, and 33 and Col. 8, lines 38-42). Ohyama discloses that the light sources and the diffracting device with plural diffracting portions that correspond to one of the different wavelengths are used to make an optical pickup apparatus compatible with more types of optical recording mediums (Col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the optical pickup apparatus of Kay, the light sources and the plural diffracting portions corresponding to one of the different wavelengths of Ohyama, the motivation being to increase the types of optical recording mediums with which the optical pickup apparatus is compatible.

In regard to claim 7, Kay discloses that the optical device is integrated with the diffracting device (Fig. 1, elements 34, 42, and 64 and Col. 6, lines 22-24).

In regard to claim 8, Kay in view of Ohyama discloses the optical pickup apparatus of claim 5. Kay discloses that the diffracting device is a polarization hologram whose diffracting

function is different according to a polarization state of the incident light beam, and includes plural polarization hologram portions configured to diffract the light beams of the different wavelengths reflected from the optical device to the photodetecting device for monitor light detection (Col. 4, line 64 - Col. 5, line 1).

In regard to claim 11, Kay discloses an optical pickup apparatus for reading/reproducing data on an optical recording medium, comprising: light emitting means for emitting a light beam (Fig. 1, element 40); diffracting means for transmitting the light beam emitted from the light emitting means and for diffracting a light beam reflected from the optical recording medium (Fig. 1, element 42); optical means having a reflecting portion and a transmitting portion, for reflecting parts of the light beam emitted from the light emitting means to the diffracting means by the reflecting portion, and for transmitting other parts of the light beam emitted from the light emitting means to the optical recording medium by the transmitting portion, and for transmitting the light beam reflected from the optical recording medium to the diffracting means by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); detecting means (Fig. 1, elements 68 and 72) for detecting the light beam reflected from the optical recording medium through the optical device and the diffracting device, for signal light detection (Fig. 1, element 68); and wherein the diffracting means includes plural diffracting portions to diffract the parts of the light beam reflected by the reflecting portion of the optical means to the detecting means, so as to be detected on the detecting means for monitor light detection of each of the light emitting means (Fig. 1, elements 42 and 72 and Fig. 3). Kay does not disclose a light emitting means for emitting light beams of different wavelengths or that each of the diffracting portions corresponds to one of the different wavelengths.

Ohyama discloses a light emitting means for emitting light beams of different wavelengths and a diffracting means that includes plural diffracting portions, in which each of the diffracting portions corresponds to one of different wavelengths of said light beams (Figs. 2-4, elements 25, 27, 29. 31, and 33 and Col. 8, lines 38-42). Ohyama discloses that the light emitting means and the diffracting means with plural diffracting portions that correspond to one of the different wavelengths are used to make an optical pickup apparatus compatible with more types of optical recording mediums (Col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the optical pickup apparatus of Kay, the light emitting means and the plural diffracting portions corresponding to one of the different wavelengths of Ohyama, the motivation being to increase the types of optical recording mediums with which the optical pickup apparatus is compatible.

In regard to claim 13, Kay discloses an optical data recording/reproducing apparatus for recording/reproducing data on an optical recording medium, comprising: a light source configured to a emit light beam (Fig. 1, element 40); a diffracting device configured to transmit the light beam emitted from the light source and to diffract a light beam reflected from the optical recording medium (Fig. 1, element 42); an optical device having a reflecting portion and a transmitting portion, configured to reflect parts of the light beam emitted from the light source to the diffracting device by the reflecting portion, and to transmit other parts of the light beam emitted from the light source to the optical recording medium by the transmitting portion, and to transmit the light beam reflected from the optical recording medium to the diffracting device by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); a collimating lens configured to collimate the light beam transmitted through the transmitting portion of the optical device (Fig. 1, element 44);

an objective lens configured to focus the light beams from the collimating lens onto the optical recording medium (Fig. 1, element 52); a photodetecting device (Fig. 1, elements 68 and 72) configured to detect the light beam reflected from the optical recording medium through the objective lens, the collimating lens, the optical device and the diffracting device, for signal light detection (Fig. 1, element 68); and wherein the diffracting device includes plural diffracting portions to diffract the light beam reflected by the reflecting portion of the optical device to the photodetecting device, so as to be detected on the photodetecting device for monitor light detection of the light source (Fig. 1, elements 42 and 72 and Fig. 3). Kay does not disclose light sources configured to emit light beams of different wavelengths or that each of the diffracting portions corresponds to one of the different wavelengths.

Ohyama discloses light sources configured to emit light beams of different wavelengths and a diffracting device that includes plural diffracting portions, in which each of the diffracting portions corresponds to one of the different wavelengths (Figs. 2-4, elements 25, 27, 29. 31, and 33 and Col. 8, lines 38-42). Ohyama discloses that the light sources and the diffracting device with plural diffracting portions that correspond to one of the different wavelengths are used to make an optical data recording/reproducing apparatus compatible with more types of optical recording mediums (Col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the optical data recording/reproducing apparatus of Kay, the light sources and the plural diffracting portions corresponding to one of the different wavelengths of Ohyama, the motivation being to increase the types of optical recording mediums with which the optical pickup apparatus is compatible.

In regard to claim 15, Kay discloses an optical data recording/reproducing apparatus for recording/reproducing data on an optical recording medium, comprising: light emitting means for emitting a light beam (Fig. 1, element 40); diffracting means for transmitting the light beam emitted from the light emitting means and for diffracting a light beam reflected from the optical recording medium (Fig. 1, element 42); optical means having a reflecting portion and a transmitting portion, for reflecting parts of the light beam emitted from the light emitting means to the diffracting means by the reflecting portion and for transmitting other parts of the light beam emitted from the light emitting means to the optical recording medium by the transmitting portion, and for transmitting the light beam reflected from the optical recording medium to the diffracting means by the transmitting portion (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); collimating means for collimating the light beam transmitted through the transmitting portion of the optical means with reflecting portion (Fig. 1, element 44); focusing means for focusing the light beam from the collimating means to the optical recording medium (Fig. 1, element 52); detecting means (Fig. 1, elements 68 and 72) for detecting the light beam reflected from the optical recording medium through the collimating means, the focusing means, the optical means, and the diffracting means, for signal light detection (Fig. 1, element 68); and wherein the diffracting means includes plural diffracting portions to diffract the parts of the light beam reflected by the reflecting portion of the optical means to the detecting means, so as to be detected on the detecting means for monitor light detection of each of the light emitting means (Fig. 1, elements 42 and 72 and Fig. 3). Kay does not disclose a light emitting means for emitting light beams of different wavelengths or that each of the diffracting portions corresponds to one of the different wavelengths.

Ohyama discloses a light emitting means for emitting light beams of different wavelengths and a diffracting means that includes plural diffracting portions, in which each of the diffracting

portions corresponds to one of different wavelengths of said light beams (Figs. 2-4, elements 25, 27, 29. 31, and 33 and Col. 8, lines 38-42). Ohyama discloses that the light emitting means and the diffracting means with plural diffracting portions that correspond to one of the different wavelengths are used to make an optical pickup apparatus compatible with more types of optical recording mediums (Col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the optical pickup apparatus of Kay, the light emitting means and the plural diffracting portions corresponding to one of the different wavelengths of Ohyama, the motivation being to increase the types of optical recording mediums with which the optical pickup apparatus is compatible.

In regard to claim 18, Kay discloses an optical data recording/reproducing method for recording/reproducing data on an optical recording medium, comprising: emitting a light beam by a light source (Fig. 1, element 40); transmitting the light beam emitted from the light source and diffracting a light beam reflected from the optical recording medium by a diffracting device (Fig. 1, element 42); reflecting parts of the light beam emitted from the light source to the diffracting device by a reflecting portion of an optical device and transmitting other parts of the light beam emitted from the light source to the optical recording medium by a transmitting portion of the optical device, and transmitting the light beam reflected from the optical recording medium to said diffracting device by the transmitting portion of the optical device (Fig. 1, elements 34 and 64 and Col. 6, lines 22-24); collimating the light beam transmitted through the transmitting portion of the optical device by a collimating lens (Fig. 1, element 44); focusing the light beams onto the optical recording medium by an objective lens (Fig. 1, element 52); detecting the light beam reflected from the optical recording medium through the objective lens, the collimating lens, the optical device,

and the diffracting device, for signal light detection by a photodetecting device (Fig. 1, element 68); and diffracting the light beam reflected by the reflecting portion of the optical device to the photodetecting device through plural diffracting portions so as to be detected on the photodetecting device for monitor light detection the light source (Fig. 1, elements 42 and 72 and Fig. 3). The photodetecting device of Kay is interpreted as comprising elements 68 and 72. Kay does not disclose emitting light beams of different wavelengths or that each of the diffracting portions corresponds to one of the different wavelengths.

Ohyama discloses emitting light beams of different wavelengths by light sources and plural diffracting portions that correspond to one of the different wavelengths (Figs. 2-4, elements 25, 27, 29. 31, and 33 and Col. 8, lines 38-42). Ohyama discloses that emitting light beams of different wavelengths and plural diffracting portions that correspond to one of the different wavelengths are used to make an optical data recording/reproducing method compatible with more types of optical recording mediums (Col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the optical data recording/reproducing method of Kay, the light emitting means and the plural diffracting portions corresponding to one of the different wavelengths of Ohyama, the motivation being to increase the types of optical recording mediums with which the optical data recording/reproducing method is compatible.

In regard to claim 19, Kay in view of Ohyama discloses the method according to claim 18. Kay discloses using said photodetecting device to control output of said light source (Col. 6, lines 32-56).

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda.

Takeda discloses the optical pickup apparatus of claim 1 that further comprises a quarter wave plate that is disposed on the optical path between the hologram lens, which comprises the diffracting device and the optical device, and an objective lens (Col. 7, lines 40-41). Takeda teaches that a quarter wave plate used in conjunction with a diffracting device having a polarizing property will efficiently diffract a light beam reflected from an optical recording medium (Col. 7, lines 40-45). Takeda does not disclose that the quarter wave plate is disposed between the optical device and the diffracting device.

It is noted that the quarter wave plate is added to change the polarization direction of the light so that a diffracting device with a polarizing property act on incident light differently than return light. The quarter wave plate, placed anywhere between the diffracting device and the optical recording medium will have an equivalent effect on the light because after passing through the diffracting device, the light passes through quarter wave plate twice before passing through the diffracting device again.

It would have been obvious to dispose the quarter wave plate between the optical device and the diffracting device in the optical pickup apparatus of Takeda because disposing the quarter wave plate between the optical device and the diffracting device is an art recognized equivalent to disposing the quarter wave plate anywhere between the diffracting device and the objective lens at the time of the invention for the function of changing the polarization direction of light after the light has passed through a diffracting device and before the light passes through the diffracting device again.

Allowable Subject Matter

7. Claim 9/7 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of claim 5 (base claim) and any intervening claims. None of the references of record alone or in combination disclose or suggest an optical pickup apparatus for reading/reproducing data on an optical recording medium, comprising: light sources configured to emit light beams of different wavelengths; a diffracting device configured to transmit the light beams emitted from the light sources and to diffract light beams reflected from the optical recording medium; an optical device having a reflecting portion and a transmitting portion, configured to reflect one part of the light beams emitted from the light sources to the diffracting device by the reflecting portion and to transmit other parts of the light beams emitted from the light sources to the optical recording medium by the transmitting portion, and to transmit the light beams reflected from the optical recording medium to the diffracting device by the transmitting portion; a photodetecting device configured to detect the light beams reflected from the optical recording medium through the optical device with reflecting portion and the diffracting device, for signal light detection; and wherein **the diffracting device includes plural diffracting portions, in which each of the diffracting portions corresponds to one of the different wavelengths, to diffract the respective parts of the light beams reflected by the reflecting portion of the optical device to the photodetecting device**, so as to be detected on the photodetecting device for monitor light detection of each of the light sources; and wherein the optical device is integrated with the diffracting device; and **wherein a section of the diffracting device at a side of the optical device form a section of bilateral asymmetry.**

8. Claim 23 is allowable over the prior art of record.

Response to Arguments

9. Applicant's arguments, see pages 21-22, filed March 5, 2004, with respect to the rejections of claims 1-4 and 9-10 as being anticipated by Takeda have been fully considered but they are not persuasive. Applicant argues that Takeda uses separate devices or means to detect the signal light and the monitor light. Takeda discloses an optical detector for receiving signal light (Figs. 2A and 2B, element 7) and an optical detector for receiving monitor light (Figs. 2A and 2B, element 8). However, both of the optical detectors, which are located on the same substrate (Fig. 2A, element 6) and in close proximity to one another (Fig. 2B), are interpreted as being part of the same photodetecting device (claim 1) or detecting means (claim 10). It is noted that the photodetecting device or detecting means of the claimed invention also has an optical detector for receiving signal light (Fig. 4, element 7a) and an optical detector for receiving monitor light (Fig. 4, element 7b). Therefor, the signal light and monitor light are both guided to the same photodetecting device or detecting means and the claim limitations are met.

10. Applicant's arguments, see page 22, filed March 5, 2004, with respect to the rejection of claim 9 as being anticipated by Takeda have been fully considered but they are not persuasive. Applicant argues that Takeda does not disclose a section of the diffracting device at a side of the optical device forms a section of bilateral asymmetry. In addition, after quoting a portion of the first Office Action that supports Takeda's disclosure of the limitation by pointing to Fig. 3A, element 34, Applicant asserts that no support has been provided other than a recitation of the claim. On the contrary, Takeda discloses a section of the diffracting device at a side of the optical device (Fig. 3A, element 34). Bilateral symmetry is a symmetrical arrangement along a central axis, so that the body is divided into equivalent right and left halves by only one plane. Bilateral asymmetry is a lack of bilateral symmetry. The section of the diffracting device (Fig. 3A, element

34) is located on only one side the optical device and diffraction grooves are shown at an angle. Therefore, the body of the integrated diffracting and optical device can not be divided into equivalent right and left halves by only one plane and a section of bilateral asymmetry is formed.

11. Applicant's arguments, see pages 22-24, filed March 5, 2004, with respect to the allowability of claim 24 have been fully considered but they are not persuasive. Applicant discusses differences between the claimed invention and the invention of Takeda and then fails to claim the invention in a way that patentably distinguishes it from Takeda.

12. Applicant's arguments, see pages 24-26, filed March 5, 2004, with respect to the rejections of claims 5, 7-8, and 11-19 as being anticipated by Kay or unpatentable over Kay in view of Ohyama have been fully considered but they are not persuasive. Applicant argues that Kay uses separate devices or means to detect the signal light and the monitor light. Kay discloses a detector array for receiving signal light (Figs. 1, 2, and 4, element 68) and an optical detector for receiving monitor light (Figs. 1, 2, and 4, element 72 and Col. 6, lines 32-34). However, both the detector array and the optical detector, which are located on the same base and in close proximity to one another (Figs. 1 and 2), are interpreted as being part of the same photodetecting device or detecting means. It is noted that the photodetecting device or detecting means of the claimed invention also has a detector array for receiving signal light (Fig. 4, element 7a) and an optical detector for receiving monitor light (Fig. 4, element 7b). Therefor, the signal light and monitor light are both guided to the same photodetecting device or detecting means and the claim limitations are met.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Battaglia whose telephone number is (703) 305-4534. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Battaglia

W. R. YOUNG
PRIMARY EXAMINER